with a team (orthopedic surgeons and infectologist). This is the key in determining the functional status of the prosthesis, in order to define the surgery strategy. Two-stages EA is the method that achieves better control of infection. There were no significant differences in the outcome with the others variables studied.

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Cerebrospinal meningitis outbreak in Kano state, Nigeria

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Background: Neisseria meningitides (Nm) is the leading cause of epidemic Cerebrospinal meningitis (CSM). Kano State in northern Nigeria is located within the 'African meningitic belt' and has reported frequent CSM outbreaks in the past. In March 2009, a suspected outbreak of CSM was reported from Kano. We conducted an investigation to describe the magnitude of the outbreak and institute public health control measures.

Methods: We reviewed patient hospital records, interviewed healthcare workers and hospitalized cases. A total of 60 hospitalized cases chosen systematically in one of the reporting Local Government Areas (LGAs) were interviewed with a structured questionnaire. We collected Cerebrospinal fluid (CSF) specimens from suspected cases from the first 15-20 suspected cases from each LGA. A suspected case of CSM was defined as any person aged two years and above with sudden onset of fever (>38oC axillary) and any one of these signs: neck stiffness, altered consciousness, and other meningeal signs. A confirmed case was defined as a suspected case with laboratory confirmation. We analyzed data with Epi info version 3.3.2 and Microsoft excel office 2003.

Results: A total of 1036 suspected cases were reported with 30 deaths, a case fatality rate of 2.9%. The overall attack rate was 10.0 per 100,000 persons but varied over the weeks and by LGA. Majority of the cases were aged 2-15 years {812 (78.4%)}. The age-specific attack rate for age group 2-15 years was 19.6 per 100,000 persons. Of 60 cases interviewed, only 3 (5.0%) had received CSM vaccination within previous 3 years. Out of 124 CSF samples analyzed, 69 (55.6%) tested positive for Nm serogroup 'A' (Nm A). The recommended drugs for case management in meningitis outbreaks — oily chloramphenicol and ceftriaxone were not available.

Conclusion: Nm A was the cause of the CSM outbreak that affected mostly age group 2-15 years in Kano. The authorities should conduct a reactive vaccination campaign targeting this age group and procure adequate drugs for effective case management.

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A comparison of infective endocarditis related sequelae incidence among population- based, multicenter, and hospital-based cohorts: Data trom a systematic review for the global burden of disease project

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Background: Referral bias has been shown to influence infective endocarditis (IE) epidemiology in a previous study comparing IE patients from Olmsted county, Minnesota and those referred to Myao clinic from other hospitals. Due to scarce data from population based studies in many countries, less representative IE patient populations may be needed to estimate the burden of this disease. We aimed to compare the incidence of IE related sequelae among published pouplation- based, multicenter, and hospital-based cohorts.

Methods: We conducted a systematic review of puplished studies,surveys,and other data sources in order to assess the global epidemiology of IE and related disabling sequelae. A simplified model was used and it included cure, valve surgery,stroke, and death. Electronic databases searched included MIDLINE,EMBASE,LILACS,koreaMED,AMED,EXTRAMED,scopus and web of scinence.To estimate IE sequela and mortality,data from population based studies were used preferentially whenever availabe for a given country followed by multicenter cohorts and then hospital series. We copmare the incidence of IE related sequelae among published population- based, multicenter, and hospital based cohorts.

Results: Data were from 40 countries and 2 international collaborations. we identified 121 cohorts, 21 were population-based, 21 were muticenter, and 79 were hospital based. The incidence on IE related sequelae did not differ significantly among the different cohorts (table).

Population based Studies	Valve replacement (%)	Stroke (%)	Mortality (%)
Mean(Standard Deviation)	25(13)	7(13)	25(10)
Median (Range)	21(44)	15(32)	21(35)
Multicenter Cohorts			
Mean(Standard Deviation)	38(16)	14(19)	20(8.8)
Median(Range)	43(47)	15(29)	18(37)
Hospital Cohorts			
Mean(Standard Deviation)	28(16)	16(21)	23(25)
Medican(Range)	26(63)	12(42)	23(57)

Conclusion: In this systematic review of IE studies, the incidence of IE related sequelae did not differ significantly among different types of sampled populations. Due to the paucity of population-based data from many countries, hos-